Results from Cobb Vantress analyses with multiple locus association mapping methods

Results not looking good –some candidate genes but also regions where there is nothing (LOC ) and SDK1 is just weird (retina formation??)

Trying same analyses but with PC1 – PC10 added

Running WT1 and Ultra since these traits had lots of QTL

If this doesn’t work, could look at CaliF or CaliM to see if better performance (from memory, a lot less QTL are found).

Ideal: looking for a couple of traits where the single locus results are unclear, there are multiple QTL found by AM+, they id genes that have been found to be respondible for traits in chickens, not all the multiple locus methods find all the genes except AMplus. Yeehaa!!!

CALIF Results

Ultra

KCNQ1

The KCNQ1 gene belongs to a large family of genes that provide instructions for making potassium channels. These channels, which transport positively charged atoms (ions) of potassium out of cells, play key roles in a cell's ability to generate and transmit electrical signals.

GIP

his gene encodes an incretin hormone and belongs to the glucagon superfamily. The encoded protein is important in maintaining glucose homeostasis as it is a potent stimulator of insulin secretion from pancreatic beta-cells following food ingestion and nutrient absorption. This gene stimulates insulin secretion via its G protein-coupled receptor activation of adenylyl cyclase and other signal transduction pathways

SBF2

19.

[Genome-wide association study identifies two novel loci containing FLNB and SBF2 genes underlying stature variation](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=2&SID=T2RUloYDvmKioRBAEFV&page=2&doc=19&cacheurlFromRightClick=no)

By: Lei, Shu-Feng; Tan, Li-Jun; Liu, Xiao-Gang; et al.

[HUMAN MOLECULAR GENETICS](javascript:;)   Volume: 18   Issue: 9   Pages: 1661-1669   Published: MAY 1 2009

PCLO

The protein encoded by this gene is part of the presynaptic cytoskeletal matrix, which is involved in establishing active synaptic zones and in synaptic vesicle trafficking. Variations in this gene have been associated with bipolar disorder and major depressive disorder. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2011]

POPDC2

This gene encodes a member of the POP family of proteins which contain three putative transmembrane domains. This membrane associated protein is predominantly expressed in skeletal and cardiac muscle, and may have an important function in these tissues.

WT1

GIP Gastric Inhibitory Polypeptide

Monir, Mohammad M.; Hiramatsu, Kohzy; Matsumoto, Sachiko; et al.

[ANIMAL SCIENCE JOURNAL](javascript:;)   Volume: 85   Issue: 5   Pages: 581-587   Published: MAY 2014

IRF1 - found in feed efficiency study in chickens.

PhD thesis: GENES IN THE IGF PATHWAY AND THEIR AS

SOCIATION WITH FEED EFFICIENCY

by

AARTI PRAKASH SANGLIKAR

FCR

ZEB1 Zinc Finger E-Box Binding Homebox 1

References

Cattle reference – growth, body composition, feed intake and reproduction traits – multiple trait analysis. A multi-trait, meta-analysis for detecting pleiotropic polymorphisms for stature, fatness and reproduction in beef cattle. 2014

FI

ARHGAP22 Rho GTPase Activating Protein 22

GIP

LOC101747717

RFI

WDFY4 LOC101749491 MIPOL1

GAIN

GIP HHIPL2

**CaliM**

Ultra

WT1

FCR

FI

RFI

GAIN